Owner's Operating Service Instruction Manual

10¢

Model No.
244-650 A

- ASSEMBLY
- OPERATION
- REPAIR PARTS

POWER SHREDDER

WARRANTY

For one year from date of purchase, MTD Products Inc will replace for the original purchaser, free of charge, F.O.B. factory or authorized service firm, any part or parts found to be defective in material or workmanship. All transportation charges on parts submitted for replacement under this warranty must be paid by the purchaser. This warranty does not include replacement of parts which become inoperative through misuse, excessive use, accident, neglect, improper maintenance or alterations by unauthorized persons. This warranty does not include the engine, motor, battery, battery charger or any component parts thereof. For service on these units, refer to the applicable manufacturer's warranty.

The above warranty will apply only to the original owner and will be effective only if the warranty card has been properly processed. It will not apply where the unit has been used commercially.

Warranty service is available through your local authorized service dealer or distributor. UNDER NO CIRCUMSTANCES WILL THE RETURN OF A COMPLETE UNIT BE ACCEPTED BY THE FACTORY UNLESS PRIOR WRITTEN PERMISSION HAS BEEN EXTENDED.

MTD PRODUCTS INC • 5389 WEST 130th STREET • P. O. BOX 2741 CLEVELAND OHIO 44111

PRINTED IN U.S.A.

FORM NO. 770-4889

IMPORTANT

SAFE OPERATION PRACTICES

1. Read the Operating and Service Instruction Manual carefully. Be thoroughly familiar with the controls and proper use of equipment.
2. Never allow children to operate a power shredder.
3. Keep the area of operation clear of all persons, particularly small children and pets.
4. Check fuel before starting engine. Do not fill gasoline tank indoors, when engine is running, or while engine is still hot. Wipe off any spilled gasoline before starting engine.
5. Do not change engine governor settings or overspeed engine.
6. Do not put hands near rotating parts. Keep clear of discharge opening at all times.
7. If the equipment should start to vibrate abnormally, stop the engine (motor) and check immediately for the cause. Vibration is generally a warning of trouble.
8. When cleaning, repairing or inspecting, make certain blade and all moving parts have stopped. Disconnect spark plug wire and keep wire away from plug to prevent accidental starting.
9. Shut engine (motor) off and wait until blade comes to a complete stop before unclogging chute.
10. Check blade and engine mounting bolts at frequent intervals for proper tightness.
11. Keep all nuts, bolts, and screws tight to be sure equipment is in safe working condition.
12. Never store equipment with gasoline in the tank inside of a building where fumes may reach an open flame or spark. Allow engine to cool before storing in any enclosure.
13. To reduce fire hazard keep free of grass, leaves or excessive grease.

OPERATION

1. Service engine with gas and oil. See engine manual packed with shredder for complete instructions for the care and maintenance of engine. READ DIRECTIONS CAREFULLY.
2. When ready to start engine, place throttle control lever in START position and start engine in accordance with instructions in engine manual. After engine starts, move throttle control lever to desired engine speed. The engine is stopped by placing control lever in the STOP position.

CAUTION:

The manufacturer recommends that the operator wear safety glasses or some other suitable eye protection as it is possible for chips to be ejected out of the inlet openings while feeding material.

USING YOUR SHREDDER

Your shredder is designed for safe, efficient, operation. CARE, OF COURSE, MUST BE EXERCISED THAT HANDS ARE KEPT AWAY FROM ALL OPENINGS.
Your shredder guide extension is adjustable. It may be adjusted to desired height by loosening the hand knob as shown in figure 1.

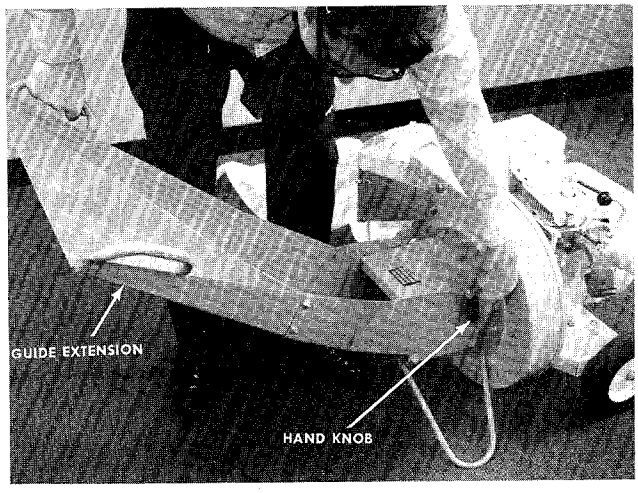


FIGURE 1. GUIDE EXTENSION ADJUSTMENT

Feed the material so that it slides down the guide extension. See figure 2.

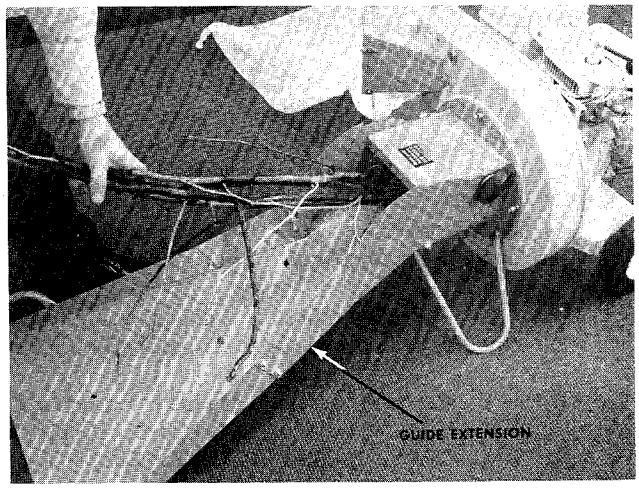


FIGURE 2. FEEDING MATERIAL INTO GUIDE

EXTENSION

A steady flow of material provides the best results. Bulky material, such as stalks or heavy branches, should be fed into the upper guide extension. See figure 3.

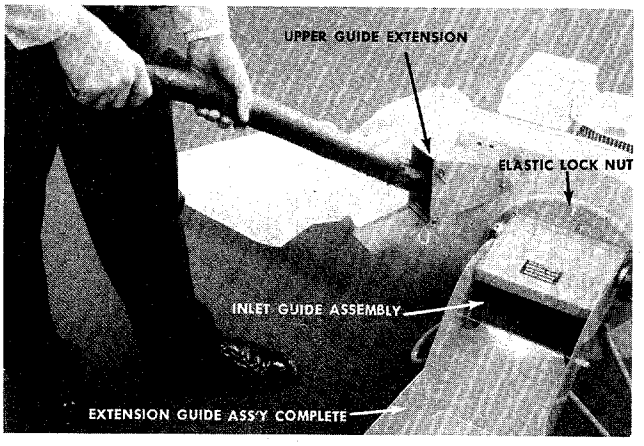


FIGURE 3. FEEDING MATERIAL INTO UPPER GUIDE

EXTENSION

It is possible to feed too fast and you will find it will take some experimenting with feeding rates to get the most out of your shredder without stalling the engine.

Under certain conditions, it may be necessary to push the materials into the inlet guide assembly. When this becomes necessary, use a small diameter stick—NOT YOUR HANDS. The stick should be of a size that will be ground up if it gets into the impeller assembly.

The discharge chute will direct the shredded material into a pile or a container. NOTE: Your shredder is equipped with a nylon bag with drawstring lock. This will accommodate a perforated disposable plastic bag. CAUTION: Keep clear of the chute area since the shredded material comes out with considerable velocity. Always stop engine and disconnect spark plug wire when changing bags.

MAINTENANCE

CAUTION: Always stop engine and disconnect spark plug wire before doing any maintenance.

Cutting Blade—The blade may easily be removed for grinding or replacement as follows:

1. **Remove guide extension assembly by removing** four elastic locknuts (Ref. No. 11). See figure 8.
2. Remove bolt (Ref. No. 38), lockwasher (Ref. No. 37) and flat washer (Ref. No. 36) holding blade (Ref. No. 45) to engine crankshaft. See figure 9.
3. **NOTE: Blade is reversible and can be assembled to crankshaft with either side showing.**

When sharpening blade, follow the original angle of grind as a guide. It is extremely important that each cutting edge receives an equal amount of grinding to prevent an unbalanced blade. An unbalanced blade will cause excessive vibration when rotating at high speeds and may cause damage to the unit. Upon reassembly, make certain all parts are assembled properly and tightened securely.

LUBRICATION

WHEELS—Wheel bearings are of lifetime Fortiflex. They require no lubrication.

ENGINE—Follow engine manual for lubrication instructions.

CAUTION

Do Not deposit material larger than ½" diameter in hopper. This may cause damage to the shredding mechanism.

BEFORE STARTING

NOTE

Do not mix oil with gasoline.

1. Fill fuel tank with fresh regular gasoline. (See figure 4.)
2. Fill crankcase with oil. (See figure 4.)

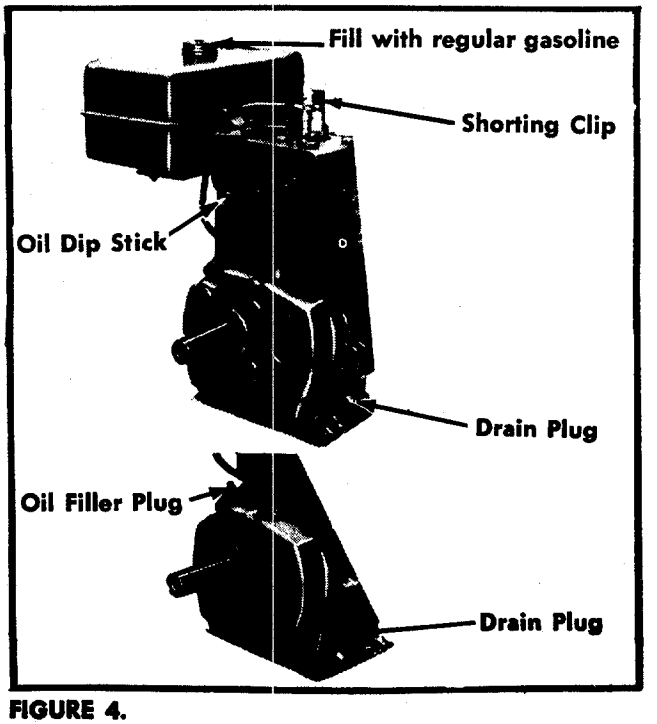


FIGURE 4.

Position equipment so that engine is setting level. Remove dip stick or oil filler plug (Figure 1). Pour oil into oil filler tube from which dip stick was removed and fill to FULL mark on dip stick. Do not overfill. After initial filling follow instructions on dip stick. Be sure dip stick is screwed into filler opening as far as it will go when measuring oil level.

During initial break-in period, oil level should be watched closely See ENGINE MAINTENANCE.

Use MS classification oil. Do not use oils marked only MM or ML or unmarked.

Above 32° use SAE 30; below 32° use SAE 10W These recommendations must be followed for best performance and long life.

Change oil first two (2) hours of operation and check oil level every five (5) operating hours or each time equipment is used.

Change oil every twenty-five (25) operating hours or sooner if equipment is operated in extremely dusty or dirty conditions.

NOTE: Carburetors are preset at the factory. DO NOT attempt to make adjustments at this time. See carburetor instructions outlined under CARBURETOR ADJUSTMENT.

NOTE: If engine is equipped wth 6:1 gear reduction use the following recommended oil weights in the gear box.

Above 32°F use EP 90 in gear box; below 32°F use SAE 10W in gear box.

TO START ENGINE

CAUTION

If engine is used on lawnmower, be sure to keep clear of mower blade at all times.

1. Be sure shorting clip (figure 4) is away from spark plug if engine is so equipped.

2. Be sure that fuel valve, if present, under fuel tank is turned on or opened and that the spark plug wire is properly attached.

3. If equipment is equipped with remote engine and speed controls, set control in CHOKE or START position.

Some equipment may have the controls on the engine. Set control on CHOKE or START.

4. Rewind starters—Use quick full arm stroke. Keep firm grip on handle and return rope slowly.

Be sure equipment controls are in NEUTRAL and that engine controls are set for starting. Stand clear of mower and move release lever to START position.

After engine has started, move carburetor control off CHOKE or STARTING position and on to RUN position.

TO STOP ENGINE

1. Press shorting clip against end of spark plug (figure 4) and hold until engine stops running. If shorting clip is not present move carburetor control to STOP position. If key starting is used, turn key to OFF position.

2. Turn off gasoline shutoff valve at underside of tank, if engine is so equipped. Some engines may have two valves, one at each end of tank.

3. Remove high tension wire from spark plug to prevent accidental starting by children while equipment is unattended.

ENGINE MAINTENANCE

To obtain long life and trouble-free service from your engine, certain normal maintenance must be performed as outlined below:

1. Change oil in crankcase after first two (2) hours of operation. Then, follow instructions outlined at left.

CAUTION

Disconnect high tension wire at spark plug to prevent accidental starting of engine. Unscrew oil drain plug located on side at bottom of engine (figure 4).

NOTE: Always tip engine toward oil drain hole. Be sure oil drains completely.
Replace oil drain plug and refill with oil as directed on page 5 or engine nameplate.

2. Check oil every five (5) operating hours or each time equipment is used.

If engine has dip stick, keep oil level at mark indicated by adding if necessary.

3. Cleaning engine—This is an aircooled engine which operates most efficiently when the cooling fins are clean.

Clean cylinder fins and underside of tank or housing thoroughly of all accumulated grass and debris.

4. **Air Cleaners**

a. Paper Type Element. Remove every 10 hours or oftener if under dusty conditions. Tap to remove loose dirt and/or blow from inside out with low pressure air. Replace if torn or perforated or when plugged to maintain proper carburetor setting (50 hours). DO NOT WASH IN ANY LIQUID AND DO NOT OIL.

b. **Oil Bath.** Remove element. Clean element and bowl. Using same oil used for engine, fill bowl to line. Replace element.

CAUTION: Do not pour oil down center of bowl (figure 6).

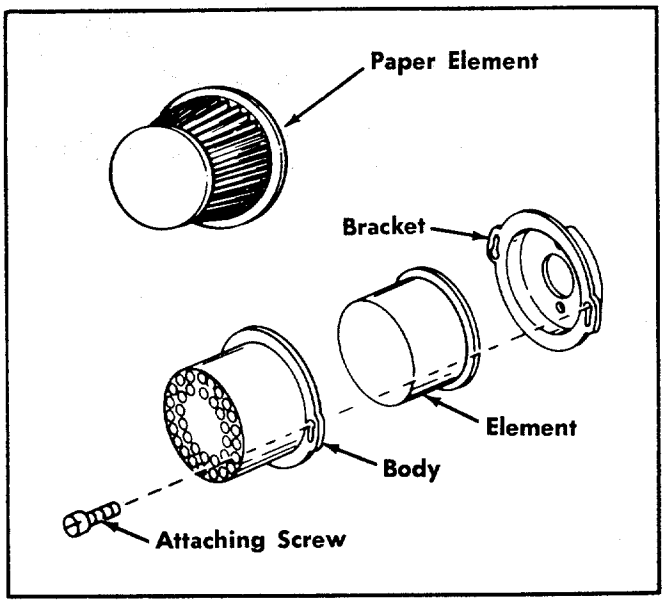


FIGURE 5.

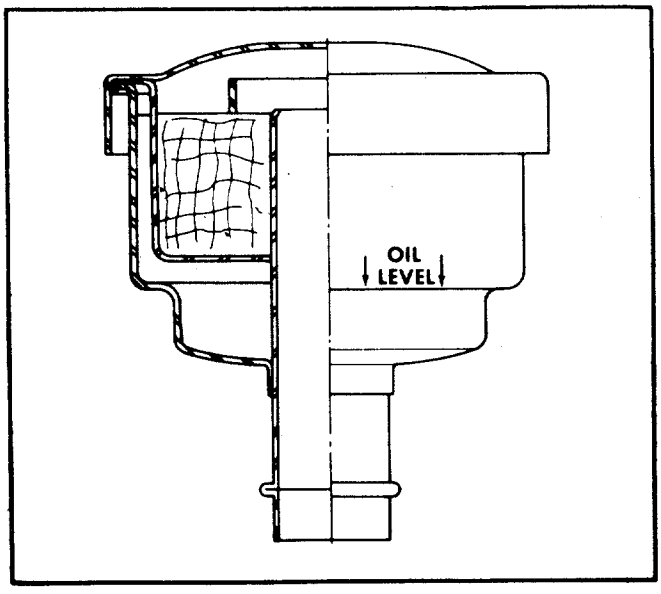


FIGURE 6

CARBURETOR ADJUSTMENTS

Do not make unnecessary adjustments. Factory settings are correct for most application. If adjustments are needed, proceed as follows:

1. Close power adjusting needle (figure 7) by turning to right (clockwise). Close finger tight only. Forcing will cause damage.

2. Open one turn (counterclockwise).

3. Close idle adjusting needle (figure 7) by turning to right (clockwise). Close finger tight only. Forcing will cause damage.

4. Open one and one-half 1½ turns (counter-clockwise).

5. Start engine. Follow starting instructions page 5.

6. With throttle open (carburetor control at RUN or FAST position) adjust power adjusting needle one-eighth (⅛) turn at a time forward or backward until engine runs smoothly. If engine tends to stall under load enrich mixture slightly (counterclockwise).

7. Hold throttle lever closed or move carburetor control to IDLE or SLOW position and adjust idle adjusting needle until engine runs smoothly proceeding as in step six (6) above.

8. Allow several seconds between each adjustment when performing either step six (6) or seven (7) to allow engine to react to new setting.

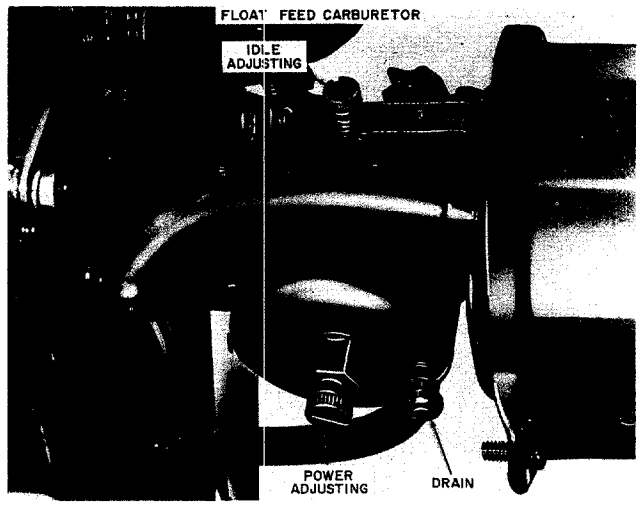


FIGURE 7.

STORAGE INSTRUCTIONS

In event engine is to be stored for any length of time (30 days or more) or at the end of mowing season, prepare as follows:

1. Drain gasoline by tipping or by syphon hose, then run engine until remainder is used and tank and carburetor are empty.

CAUTION: Drain into container outdoors away from fire or flame.

2. Drain carburetor by pressing upward on bowl drain (figure 7).

3. Inside protection of engine for storage is performed by removing spark plug and pouring one ounce of SAE 30 oil through spark plug hole into cylinder. Crank engine, without starting, several times to spread oil over cylinder walls.

244-650A

IF YOU WRITE TO US ABOUT THIS ARTICLE OR IF YOU ORDER REPLACEMENT PARTS ALWAYS MENTION THIS MODEL & SERIAL NO

MODEL

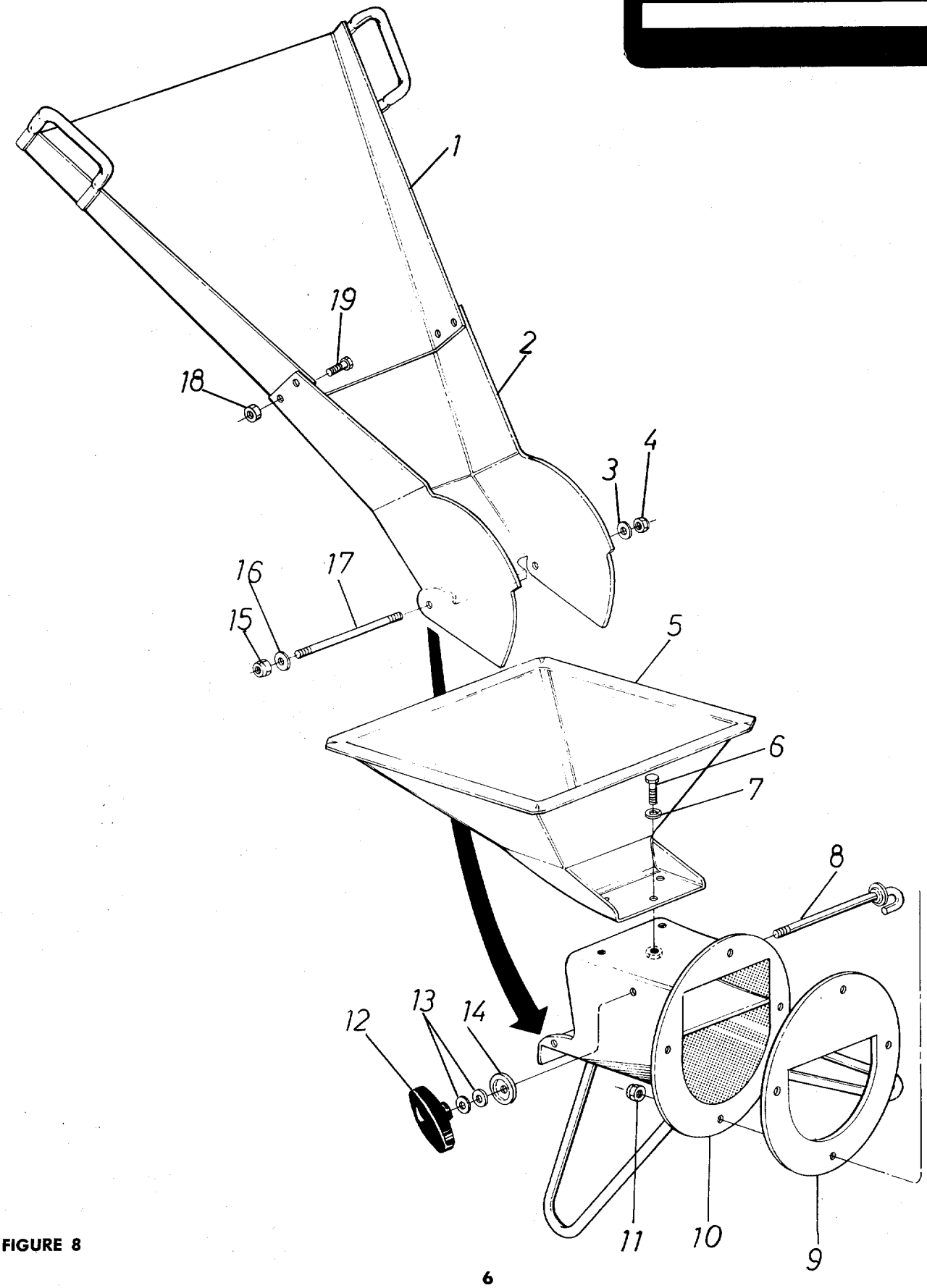


FIGURE 8

PARTS LIST FOR FIGURE 8 MODEL 244-650A

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	11460—463		Guide Extension Assembly	
2	11472—463		Guide Extension	
3	736-264		Flat Washer 5/16" Scr.*	
4	712-429		Elastic Stopnut 5/16-18 Thd.	
5	11481—463		Hopper Assembly	
6	710-621		Hex Scr. 5/16-18 x .50" Lg.*	
7	736-119		Spring L-Wash. 5/16" Scr.*	
8	11479—463		Clamp Rod Assembly	
9	11454—463		Back-up Plate	
10	11467—463		Inlet Guide Assembl y	
11	712-429		Elastic Stopnut 5/16-18 Thd.	
12	9966		Knob Ass'y.	
13	736-264		Fl-Wash. .50" Dia.*	
14	11480		Stop Washer	
15	712-429		Elastic Stopnut 5/16-18 Thd.	
16	736-264		Fl. Wash. .50" Dia.*	
17	711-566		Chute Pivot Rod	
18	712-107		Hex Center L-Nut ¼-20 Thd.	
19	710-289		Hex Scr. ¼-20 x .50" Lg.*	

*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

(463—Top Flite Red) - When ordering parts, if color or finish is important, use the appropriate color code shown at left. (e.g. Top Flite Red—11464 (463).)

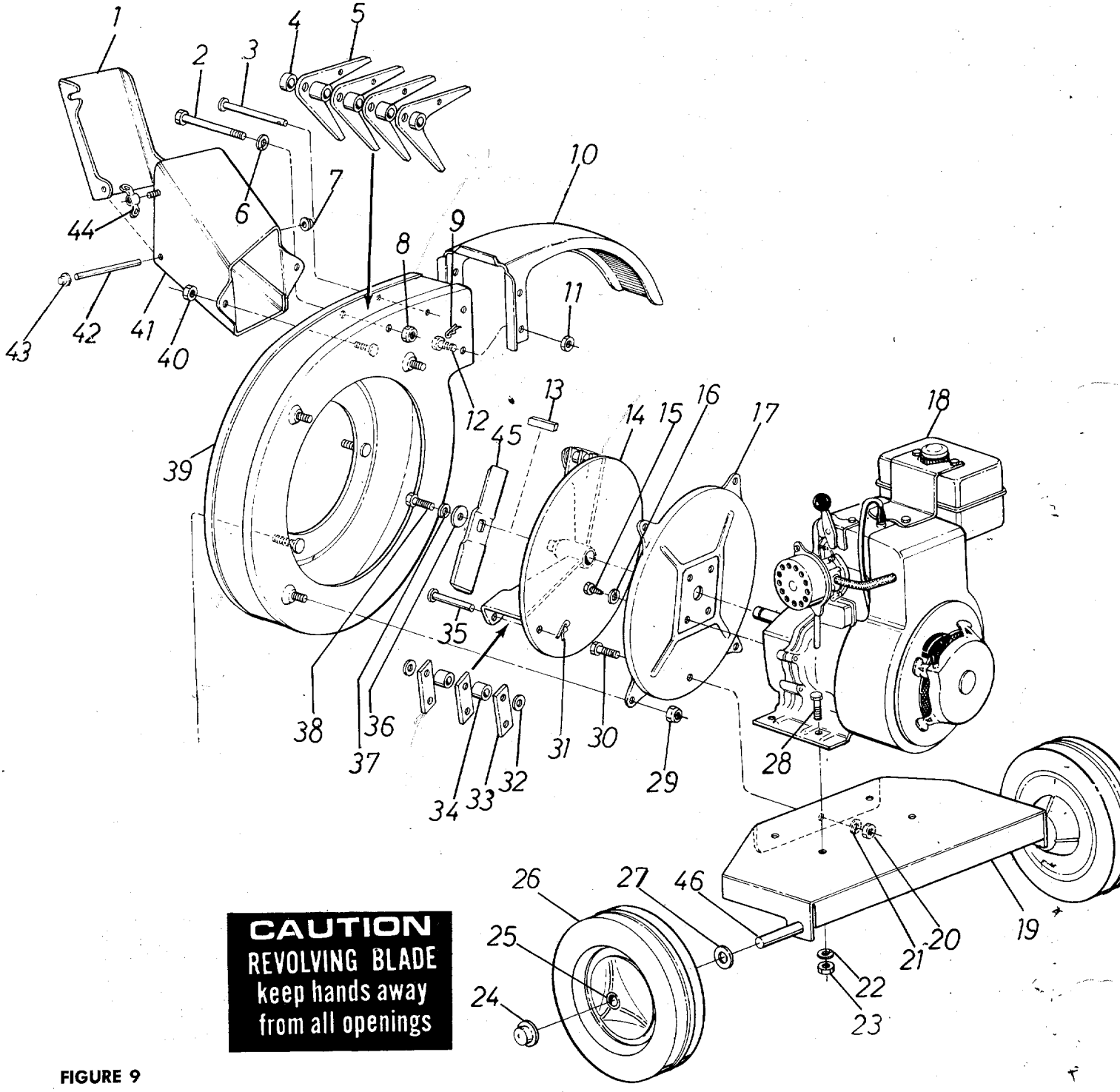
The engine is not under warranty by the mower manufacturer. If repairs or service is needed on the engine, please contact your nearest authorized engine service outlet. Check the "Yellow Pages" of your telephone book under "Engines—Gasoline."

244-650A

IF YOU WRITE TO US ABOUT THIS ARTICLE OR IF YOU ORDER REPLACEMENT PARTS ALWAYS MENTION THIS MODEL & SERIAL NO

MODEL

keep this door closed except when feeding material



CAUTION
REVOLVING BLADE
keep hands away
from all openings

FIGURE 9

PARTS LIST FOR FIGURE 9 MODEL 244-650A

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	11476	—403	Door—Upper Guide Extension	
2	710-465		Hex Scr. ½-20 x 4.50" Lg.*	
3	711-580		Clevis Pin	
4	711-579		Flail Spacer 7/32" Lg.	
5	11455	—463	Cutting Finger	
6	736-921		Lockwasher ½" Scr.*	
7	726-111		Palnut 3/16" Dia.	
8	712-922		Hex Jam Nut ½-20 Thd.*	
9	714-507		Cotter Pin 3/32" Dia. x ¾" Lg.*	
10	11465	—463	Chute Deflector	
11	712-107		L-Nut ¼-20 Thd.	
12	710-289		Hex Scr. ¼-20 x .50" Lg.*	
13	714-114		Sq. Key ¼" x 2.00" Lg.*	
14	11473	—463	Impeller Assembly	
15	710-157		Hex Scr. 5/16-24 x ¾" Lg.*	
16	736-119		L-Wash. 5/16" Scr.*	
17	11452	—463	Hopper to Engine Mtg. Plate	
18	—		Engine	
19	11464	—463	Engine Mounting Plate	
20	712-123		Hex Nut 5/16-24 Thd.*	
21	736-119		L-Wash. 5/16" Scr.*	
22	736-119		L-Wash. 5/16" Scr.*	
23	712-123		Hex Nut 5/16-24 Thd.*	
24	726-221		Push Cap	
25	7006		Fortiflex Bearing	
26	8306-522		Wheel Ass'y.—Comp.	
27	736-100		Fl. Wash. .50" I.D.*	
28	710-237		Hex Scr. 5/16-24 x .62" Lg.*	
29	712-429		Elastic Stopnut 5/16-18 Thd.	
30	710-237		Hex Scr. 5/16-24 x .62" Lg.*	
31	714-115		Cotter Pin ⅛" Dia. x 1.00" Lg.*	
32	736-192		Fl. Wash. .531" I.D. x .937 O.D. x .09	
33	11459	—463	Flail	
34	711-564		Flail Spacer 23/32" Lg	
35	711-578		Clevs Pin .50" Dia. x 3.0" Lg.	
36	736-247		Fl. Wash. .406" I.D. x 1.25" O.D. Hdn.	
37	736-217		L-Wash. ⅜" Scr. Heavy Duty	
38	710-151		Hex Scr. ⅜-24 x 2.00" Lg. H.T.	
39	11474	—463	Flail Housing Ass'y.—Comp.	
40	712-107		Hex Center L-Nut ¼-20 Thd.	
41	11477	—463	Upper Guide Extension Ass'y.	
42	11478		Hinge Pin	
43	726-111		Palnut 3/16" Dia.	
44	712-109		Wing Nut Elastic ¼-20 Thd.	
45	11458	—463	Blade 11458	
46	11475	—463	Axle	

764-126 BAG

*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

(463—Top Flite Red) – When ordering parts, if color or finish is important, use the appropriate color code shown at left. (e.g. Top Flite Red—11464 (463).)

The engine is not under warranty by the mower manufacturer. If repairs or service is needed on the engine, please contact your nearest authorized engine service outlet. Check the "Yellow Pages" of your telephone book under "Engines—Gasoline."

PARTS INFORMATION

DEFECTIVE OR MISSING PARTS must be reported to the factory immediately. Such claims must include your model number and date of purchase.

POWER EQUIPMENT PARTS AND SERVICE

Parts and service for all MTD manufactured power equipment are available through the authorized service firms listed below. All orders should specify the model number of your unit, parts numbers, description of parts and the quantity of each part required.

A 1 Engine & Mower Co.
327 East 9th Street
Salt Lake City, Utah 84102

American Electric Ignition Co.
124 N. W. 8th Street
Oklahoma City, Oklahoma 73102

Auto Electric & Carburetor Co.
2525 4th Avenue, S.
P. O. Box 1948
Birmingham, Alabama 35233

Automotive Equipment Service Co.
3117 Holmes Street
Kansas City, Missouri 64109

Bailey's Rebuild Inc.
1325 E. Madison Street
Seattle Washington 98102

Bleckrie, Inc.
7900 Lorain Avenue
Cleveland, Ohio 44102

Brown Equipment Distributor Inc.
110 Beech Street
Corydon, Indiana 47112

Bullard Supply
2409 Commerce Street
Houston, Texas 77003

Carl A. Anderson Co.
623 S. 16th Street
Omaha, Nebraska 68102

Cattu & Putty, Inc.
P. O. Box 2408
510 Soledad Street
San Antonio, Texas 78205

Center Supply Company
6867 New Hampshire Avenue
Takoma Park, Maryland 20012

Dixie Sales Company
P. O. Box 1408
327 Battleground Avenue
Greensboro, North Carolina 27402

East Point Cycle & Key Shop
1617 Whiteway
East Point, Georgia 30044

Gamble Distributors
West End Avenue
Carthage, New York 13619

Garden Equipment Co., Inc.
6600 Cherry Avenue
Long Beach, California 90805

Gardenville Supply, Inc.
Pipersville, Pennsylvania 18947

Henry W. O'Neil & Assoc., Inc.
410 North Goodman Street
Rochester, New York 14609

Henzler, Inc.
2015 Lemay Ferry Road
St. Louis, Missouri 63125

Kenton Supply
8216 North Denver Avenue
Portland, Oregon 97217

Kimber's Inc.
115 W. Geddes St.
Syracuse, New York 13204

The Lawnmower Shop
1340 El Camino Real
San Carlos, California 94070

Marr Brothers
423 E. Jefferson
Dallas, Texas 75203

Mathews Auto Electric Co.
420 East 2nd Street
Tulsa Oklahoma 74120

McClure Lawn & Garden Supply
1114 Lexington Avenue
Mansfield, Ohio 44907

Memphis Cycle & Supply Co.
421 Monroe Avenue
Memphis Tennessee 38103

Morton B. Collins Co.
300 Birnie Avenue
Springfield, Massachusetts 01107

Moz-All of Florida, Inc.
365 Greco Avenue
Coral Gables, Florida 33146

National Central, Div. of
Joe Sterling, Inc.
Drawer "D" 687 Seville Rd.
Wadsworth, Ohio 44281

Parts & Sales Inc.
2101 Industrial Pkwy.
Elkhart, Indiana 46514

Power Equipment Distributor
36463 So. Gratiot Avenue
Mt. Clemens, Michigan 48043

Power Lawn & Garden Equip. Co.
2551-2571 J. F. Kennedy Road
Dubuque, Iowa 52001

Radco Distributors
2403 Market Street
P. O. Box 3216
Jacksonville, Florida 32206

Raub Supply Company
James & Mulberry Sts.
Lancaster, Pennsylvania 17604

Richmond Battery & Ignition
P. O. Box 25369 — 957 Myers St.
Richmond, Virginia 23260

Smith Hardware Company
515 N. George Street
Goldsboro, North Carolina 27530

South Denver Lawn Equip. Co.
527 West Evans
Denver, Colorado 80223

Suhren Engine
8330 Earhart Blvd.
New Orleans, Louisiana 70118

Sutton's Lawn Mower Shop
Route 4, Box 343
North Little Rock, Arkansas 72117

Warner Equipment
7520 Lyndale Avenue, So.
Minneapolis, Minnesota 55423

Woodson Sales & Service
1702 North Sylvania
Ft. Worth, Texas 76111

BRIGGS & STRATTON, TECUMSEH AND PEERLESS PARTS AND SERVICE

Briggs & Stratton, Tecumseh and Peerless parts and service should be handled by your nearest authorized engine service firm. Check the yellow pages of your telephone directory under the listing *Engines — Gasoline*, Briggs & Stratton or Tecumseh Lauson — Power Products.

WARRANTY PARTS AND SERVICE POLICY

The purpose of warranty is to protect the customer from defects in workmanship and materials, defects which are NOT detected at the time of manufacture. It does not provide for the unlimited and unrestricted replacement of parts. Use and maintenance are the responsibility of the customer. The manufacturer cannot assume responsibility for conditions over which it has no control. Simply put, if it's the manufacturer's fault, it's the manufacturer's responsibility; if it's the customer's fault, it's the customer's responsibility.

CLAIMS AGAINST THE MANUFACTURER'S WARRANTY INCLUDES

1. **Replacement** of **Missing Parts** on new equipment.
2. **Replacement** of **Defective Parts** within the warranty period.
3. **Repair** of **Defects** within the warranty period.

All claims MUST be substantiated with the following information:

1. **Model Number** of unit involved.
2. **Date** unit was **purchased** or first put into service.
3. **Date of failure.**
4. **Nature of failure.**